ELSEVIER

Volume 75, Numbers 1–3, March 1998

Journal of
Materials
Processing
Technology

Contents

Metal matrix composites in China 1
Z. Libin, H. Jintao

Modeling of electromagnetically formed sheet metal 6
G.K. Fenton, G.S. Daehn

A study of a computer-aided process design system for axisymmetric deep-drawing products 17
S.B. Park, Y. Choi, B.M. Kim, J.C. Choi

Locking-suppression techniques and their application to the FEM-analysis of processes of deformation of thin-walled objects. 27
E.V. Binkevich, I. Mamuzich, V.B. Shynkarenko, F. Vodopivec

A process-sequence design of an axle-housing by cold extrusion using thick-walled pipe 33
C. Park, J.-Y. Lim, B.-B. Hwang

Compensation for the thermal error of a multi-axis machining center 45
Y. Wang, G. Zhang, K.S. Moon, J.W. Sutherland

A comparison between the back-propagation and counter-propagation networks in the modeling of the TIG welding process 54
S.C. Juang, Y.S. Tarng, H.R. Lii

Remeshing issues in the finite element analysis of metal forming problems 63
C. PavanaChand, R. KrishnaKumar

Upper-bound analysis of the extrusion of a bar of channel section from square/rectangular billets through square dies . 75
S.K. Sahoo, P.K. Kar, K.C. Singh

Residual stresses in structures coated by a high velocity oxy-fuel technique. 81
M.S.J. Hashmi, C. Pappalettere, F. Ventola

Prediction and control of cavity growth during superplastic sheet forming with finite-element modeling 87
H.L. Xing, Z.R. Wang

Blank design and formability for non-circular deep drawing processes by the finite-element method 94
S. Kim, M. Park, S. Kim, D. Seo

Failure prediction for ceramic dies in the hot-forging process using FEM simulation 100
F. Deschaux-Beaume, F. Schmidt, N. Fréty, J.C. Boyer, C. Levaillant

Geometric accuracies of NC and conventionally drilled holes. 111
A. El-Tammimi, S.M. Darwish

Analysis of blanking vibration with consideration of the break-through state. 117
B. Guo, W.M. Chen, Z.R. Wang

The influence of the constitutive behaviour of materials on the formability in radial extrusion of tubular components. . 122
M. Arentoft, H. Bjerregaard, C.B. Andersen, T. Wanheim

Joining of Si_3N_4 to Si_3N_4 using rapidly-solidified CuNiTiB brazing filler foils 137
H. Xiong, C. Wan, Z. Zhou

Applicability of indentation tests to assess ductility in the hot rolling of aluminium alloys. 143
D. Duly, J.G. Lenard, J.A. Schey

The properties and application of bi-metal hot-forging die 152
L. Guobin, W. Jianjun, L. Xiangzhi, L. Guiyun

On metal joining and the prediction of the strength of solid-phase joints 157
V.L. Kolmogorov, A.G. Zalazinsky

Elsevier Science S.A.

Directed light fabrication of a solid metal hemisphere using 5-axis powder deposition 165
J.O. Milewski, G.K. Lewis, D.J. Thoma, G.I. Keel, R.B. Nemec, R.A. Reinert

Solid-state bonding of iron-based alloys, steel–brass, and aluminum alloys 173
H.-Y. Wu, S. Lee, J.-Y. Wang

Measurement and prediction of thermal errors of a CNC machining center using two spherical balls 180
M. Yang, J. Lee

Diagnoses of the operational errors of a threaded-wheel grinder in the grinding of spur gears using kinematic transmission errors 190
M.-H. Tsai, S.-F. Lin, Y.-C. Tsai

A study of the characteristics of the electrochemical deburring of a governor-shaft cross hole 198
I.-H. Choi, J.-D. Kim

Determination of the elasto-plastic properties of aluminium using a mixed numerical–experimental method 204
M.H.H. Meuwissen, C.W.J. Oomens, F.P.T. Baaijens, R. Petterson, J.D. Janssen

Numerical simulation of the integral hydro-bulge forming of non-clearance double-layer spherical vessels: analysis of the stress state 212
S.H. Zhang, K.B. Nielsen, J. Danckert, Z.R. Wang

A review of recent advances in the application of blank-holder force towards improving the forming limits of sheet metal parts 222
E.J. Obermeyer, S.A. Majlessi

A study on the crystallization of $CaO–Al_2O_3–SiO_2$ system glasses 235
R.G. Duan, K.M. Liang

Trends and developments in the automation of design and manufacture of tools for metal stampings 240
B.T. Cheok, A.Y.C. Nee

An analytical model of the ironing process including redundant work effect 253
D.-F. Chang

Ultrasonic welding of ceramics/metals using inserts 259
S.-i. Matsuoka

Author Index of Volume 75 267

The publisher encourages the submission of articles in electronic form thus saving time and avoiding rekeying errors. A leaflet describing our requirements is available from the publisher upon request.

CONTENTS DIRECT

Contents Direct, The ***free*** e-mail alerting service, delivers the table of contents for this journal directly to your PC, prior to publication. The quickest way to register for **Contents Direct** is via the Internet at: **http://www.elsevier.nl/locate/ContentsDirect**. If you don't have access to the Internet you can register for this service by sending an e-mail message to cd-subs@elsevier.co.uk - specifying the title of the publication you wish to register for.